

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A howling detector, comprising:
 - a frequency analyzing section for ~~analyzing a frequency of~~dividing a time signal into a plurality of frequency band signals;
 - a level calculating section for calculating ~~a level of a signal~~level of each of the plurality of frequency band signals output from the frequency analyzing section over a time period defining a time progression;
 - a howling detecting section for analyzing value of the level ~~having been~~ calculated by the level calculating section and deciding whether howling occurs or not;
 - a periodic signal detecting section for analyzing time progression of the level calculated by the level calculating section and deciding whether or not the time progression of the level ~~having been calculated by the level calculating section~~ has periodicity; and
 - a howling deciding section for finally deciding whether howling occurs or not based on decision results of the howling detecting section and the periodic signal detecting section;
 - wherein the howling deciding section finally decides that howling occurs when the howling detection section decides howling occurrence and further the periodic signal detecting section decides that the time progression of the level calculated by the level calculating section does not have periodicity.
2. (Currently Amended) The howling detector according to claim 1, wherein the howling detecting section includes:

an average level calculating section for calculating a mean value of levels of all frequency bands;

a level ratio calculating section for calculating a level ratio which is a magnification difference between the level calculated by the level calculating section and an average level calculated by the average level calculating section;

a level ratio analyzing section for analyzing the level ratio ~~having been~~ calculated by the level ratio calculating section; and

a level ratio deciding section for deciding whether howling occurs or not based on an analysis result of the level ratio analyzing section.

3. (Currently Amended) The howling detector according to claim 1, wherein the periodic signal detecting section includes:

an envelope calculating section for calculating an envelope of the time progression of the level ~~having been~~ calculated by the level calculating section;

a signal condition deciding section for deciding which one of predetermined signal conditions corresponds to the envelope ~~having been~~ calculated by the envelope calculating section; and

a periodicity deciding section for deciding, based on a decision result of the signal deciding section, whether time progression of the envelope has periodicity or not.

4. (Currently Amended) The howling detector according to claim 3, wherein the signal condition deciding section decides which at least one or more signal conditions of a rising edge of a signal, a signal interval, and a non-signal interval correspond to the ~~time progression of the envelope having been~~ calculated by the envelope calculating section.

5. (Currently Amended) The howling detector according to claim 3, wherein the periodicity deciding section compares at least one or more of signal interval lengths and non-signal interval lengths between a latest time period and a

past time period in the ~~time progression of the envelope having been calculated by~~ the envelope calculating section.

6. (Original) The howling detector according to claim 3, wherein the level calculating section, the howling detecting section, the periodic signal detecting section, and the howling deciding section perform processing only on some frequency bands.

7. (Original) An acoustic device comprising the howling detector according to claim 1 and a howling suppressor.

8. (Currently Amended) A howling detection method, comprising:

a frequency analysis step of ~~analyzing a frequency of a time signal~~ a plurality of filters dividing a time signal into a plurality of frequency band signals;

a level calculation step of calculating ~~a level of~~ each of the plurality of frequency band signals ~~a signal~~ output from the frequency analysis step;

a howling detection step of analyzing value of the level ~~having been~~ calculated in the level calculation step and deciding whether howling occurs or not;

a periodic signal detection step of analyzing time progression of the level calculated by the level calculating section and deciding whether or not time progression of the level ~~having been calculated~~ in the level calculation step has periodicity, and;

a howling decision step of finally deciding whether howling occurs or not based on decision results of the howling detection step and the periodic signal detection step

wherein in the howling deciding step, howling occurrence is finally decided in cases where howling occurrence is decided in the howling detecting step and further, it is decided that the time progression of the level calculated by the level calculating section does not have periodicity in the periodic signal detecting step.